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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/369,386	08/06/1999	MOTOTAKA TANEYA	914-101	6727

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
2673	24

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/369,386

Applicant(s)

TANEYA ET AL.

Examiner

Jeff Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 14-16 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) 1, 15 and 19-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10, 14, 16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species II (i.e. claims 2-10, 14, 16, and 18) in Paper No. 23 (filed 12 December 2003) is acknowledged.
2. Claims 1, 15, and 19-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 23 (filed 12 December 2003).
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 2-10, 14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 5,294,869) in view of Rebeschi et al. (US 5,781,167). [Note: Claim order has been rearranged numerically to match claim dependencies.]

Regarding claim 10, Tang discloses an organic EL emission device [Fig. 1; 100] comprising first [Fig. 1; R1-R5] and second [Fig. 1; C1-C5] electrode layers, at least one of which is transparent; an organic light emission layer [Fig. 1; EL] for EL emission sandwiched between the first and second electrode layers for together supplying prescribed electric fields to the organic light emission layer, the organic light emission layer being in direct contact with the second electrode layer, wherein at least the first electrode layer includes a plurality of electrodes arranged with spatial periodicity, the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, and applying the prescribed electric fields in a manner such that the prescribed electric fields are substantially different from each other in polarity in adjacent electrode pair regions and vary in a time-dependent manner (see Column 4, Line 13 - Column 5, Line 56). Tang does not expressly disclose the prescribed electric fields are substantially always different from each other.

However, Rebeschi discloses an EL emission device [Fig. 2; 200] including first [Fig. 2; 216] and second [Fig. 2; 212] electrode layers, at least one of which is transparent; a light emission layer [Fig. 2; 214] for EL emission sandwiched between the first and second electrode layers for together supplying prescribed electric fields to the light emission layer; and voltage application means [Fig. 2; 217] for applying a voltage between an electrode included in the first electrode layer and an electrode included in the second electrode layer (see Column 3, Lines 56-

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64), wherein at least the first electrode layer includes a plurality of electrodes arranged with spatial periodicity, the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity (see Column 3, Lines 40-64), the voltage application means applies the prescribed electric fields in a manner such that the prescribed electric fields are substantially different from each other in polarity in adjacent electrode pair regions and vary in a time-dependent manner (see Figs. 6A-6F; Column 4, Line 17 - Column 5, Line 3). Tang and Rebeschi are analogous art because they are from the shared field of EL display devices. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Rebeschi's alternating polarity driving technique with Tang's display device, so as to prevent display resolution degradation.

Regarding claim 2, Rebeschi discloses electric fields with at least different polarity to be applied to electrode pair regions adjacent to each other among the plurality of electrode pair regions are varied with a constant time periodicity (see Figs. 6A-6F; Column 4, Line 17 - Column 5, Line 3).

Regarding claim 3, Rebeschi discloses alternating voltages with opposite polarities are applied to electrode pair regions adjacent to each other among the plurality of electrode pair regions (see Figs. 6A-6B; Column 4, Lines 43-50).

Regarding claim 4, Tang discloses at least the first electrode layer includes a plurality of electrodes in one of a dot-like form and a stripe-like form [Fig. 1; R1-R5] (see Column 4, Line 13 - Column 5, Line 56).

Regarding claim 5, Tang discloses the second electrode layer includes a plurality of stripe-like electrodes [Fig. 1; C1-C5] positioned in parallel to the plurality of stripe-like electrodes [Fig. 1; R1-R5] included in the first electrode layer (see Column 4, Line 13 - Column 5, Line 56).

Regarding claim 6, Tang discloses the second electrode layer includes a plurality of stripe-like electrodes [Fig. 1; C1-C5] arranged to intersect the plurality of stripe-like electrodes [Fig. 1; R1-R5] included in the first electrode layer (see Column 4, Line 13 - Column 5, Line 56).

Regarding claim 7, Rebeschgi discloses a first group of electrodes [Fig. 3; 312] including every other electrode are electrically connected to each other, and a second group of electrodes [Fig. 3; 332] that remain beside the first group of electrodes are electrically connected to each other in the first electrode layer (see Column 3, Line 65 - Column 4, Line 15).

Regarding claims 8 and 9, Rebeschgi discloses a first group of electrodes [Fig. 3; 322] including every other electrode are electrically connected to each other, and a second group of

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electrodes [Fig. 3; 342] that remain beside the first group of electrodes are electrically connected to each other in the second electrode layer (see Column 3, Line 65 - Column 4, Line 15).

Regarding claim 14, this claim is rejected by the reasoning applied in the above rejection of claims 3 and 10; furthermore Rebeschi discloses driving the organic EL emission device in a manner such that the prescribed electric fields at a given point in time are substantially always different from each other in polarity as applied to electrode pair regions adjacent to each other (see Figs. 6A-6B; Column 4, Lines 43-50).

Regarding claims 16 and 18, Tang discloses no insulation layer is provided between either of the electrode layers [Fig. 1; R1-R5 & C1-C5] and the light emission layer [Fig. 1; EL] (see Column 4, Line 13 - Column 5, Line 56).

Response to Arguments

6. Applicants' arguments filed 10 July 2003 have been fully considered but they are not persuasive. The applicants contend the cited prior art of Rebeschi et al. (US 5,781,167) illustrates the same polarity being applied to all neighboring pixels belonging to the same row, and therefore fails to teach the prescribed electric fields being substantially always different from each other in polarity in adjacent electrode pair regions. However, the examiner must respectfully disagree. Rebeschi explicitly discloses the prescribed electric fields are substantially different from each other in polarity in adjacent electrode pair regions [e.g. row 1 and row 2 adjacent pixels] (see Figs. 6A-6F; Column 4, Line 17 - Column 5, Line 3). Although the

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neighboring pixels along one single, particular row may arguably be driven simultaneously at the same polarity; Rebesch's figures 6E and 6F clearly illustrate the prescribed electric fields being different from each other in polarity for adjacent electrode pair regions that are positioned along neighboring rows [e.g. "pixel 1, row 1" compared to "pixel 1, row 2"]. In other words, although arguably some adjacent electrode pair regions are always at the same polarity, still other adjacent electrode pair regions are always at opposing polarities. Such a teaching reads fully upon the claimed instant application. As such, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



20 February 2004



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